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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/522,708

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Abdallah Mechi

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EXAMINER

STERRETT, JEFFREY L

ART UNIT

PAPER NUMBER

2838

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/522,708	Applicant(s) MECHI, ABDALLAH	
	Examiner Jeffrey L. Sterrett	Art Unit 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 10-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6 and 9 is/are rejected.
- 7) ☐ Claim(s) 4,5,7 and 8 is/are objected to.
- 8) ☒ Claim(s) 10-19 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. The substitute specification received on June 30, 2008 is acceptable and has been entered.
2. The drawings were received on June 30, 2008. These drawings are acceptable however the drawings remain objected to because in figures 2, 4-12, 15-20, 23-31, 33, 34, 36-40, 43-47, and 49-54 all of the boxes are not shown or labeled as to their use or purpose. Further corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
3. The title of the invention is still not descriptive. A new title, such as "AC/DC/AC multiple-phase power converter module mounted on a substrate", is required that is clearly indicative of the invention to which the claims are directed.

4. Newly submitted claims 10-19 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The previously recited and examined invention dealt with power conversion circuitry however currently amended claims 10-19 now only deal with a substrate permitting mounting of generic devices of a generic power circuit without any recitation whatsoever of power conversion.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 10-19 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2, 6, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki (JP 10-225138).

Suzuki discloses an AC/AC power converter (Figure 4) configured to be mounted on a substrate comprising a plurality of input ends (R-T); a plurality of output ends (U-W); first and second direct-current power lines; a multiple phase converter (1) including a first diode (part of the IGBT switches) having its anode connected to one of said input

ends and its cathode connected to said first direct-current power line, a second diode (part of the IGBT switches) having its anode connected to said second direct-current power line and its cathode connected to said one of said input ends connected to the anode of said first diode, and a switching part (the IGBT switches) including further diodes selectively connecting another one of said input ends to either said first direct-current power line or said second direct-current power line; at least one smoothing capacitor (C) connected between said first direct-current power line and said second direct-current power line; and a multiple-phase inverter (2) connected between said first and second direct-current power lines and said plurality of output ends.

7. Claims 1-3, 6, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Mori et al (US 2002/0034089).

Mori et al discloses an AC/AC power converter (Figures 3 and 9c) configured to be mounted on a substrate comprising a plurality of input ends (361-363); a plurality of output ends (461-463); first (21) and second (22) direct-current power lines; a multiple phase converter (3) including a first diode (part of the IGBT switches) having its anode connected to one of said input ends and its cathode connected to said first direct-current power line, a second diode (part of the IGBT switches) having its anode connected to said second direct-current power line and its cathode connected to said one of said input ends connected to the anode of said first diode, and a switching part (the IGBT switches) including further diodes selectively connecting another one of said input ends to either said first direct-current power line or said second direct-current power line; at least one smoothing capacitor (11-14 and 111-142) connected between

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said first direct-current power line and said second direct-current power line; and a multiple-phase inverter (4) connected between said first and second direct-current power lines and said plurality of output ends.

8. Claims 4, 5, 7, and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and also rewritten to overcome the above objections to the claims.

9. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey L. Sterrett whose telephone number is (571) 272-2085. The examiner can normally be reached on Monday-Thursday & 7:30am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Akm E. Ullah can be reached on (571) 272-2361. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeffrey L. Sterrett/

Primary Examiner, Art Unit 2838